

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) Equipment for printing on non-woven-fabric, comprising a support driven such as to transport a sheet of non-woven-fabric, at least one driven printing body in order to carry out the printing and a control and command unit operatively connected with each of said support and at least one printing body such as to detect electrical signals originating from said support and at least one printing body, turn said signals into numerical values representative of the status of their angular speed and torque moment, compare said numerical values with ratios of preset numerical values of said angular speed and said torque moments and send signals to said support and at least one printing body in order to correct any possible variations in said values which fall out with said ratios.

2. (Previously Presented) The equipment according to claim 1, wherein said support is driven by means of a motor and wherein said at least one printing body is driven by a motor.

3. (Previously Presented) The equipment according to claim 1, wherein said driven support is provided with through holes which cooperate with holding means in order to hold the sheet of non-woven-fabric onto said support.

4. (Previously Presented) The equipment according to claim 1, wherein said support is a cylindrical support represented by a press roller.

5. (Previously Presented) The equipment according to claim 1, wherein said support is a press belt.

6. (Previously Presented) The equipment according to claim 5, wherein said press belt is a perforated belt closed on itself.

7. (Previously Presented) The equipment according to claim 1, wherein said at least one printing body comprises from two to twelve rotating engraved rollers operated individually and independently by motors.

8. (Previously Presented) The equipment according to claim 3, wherein said holding means comprise suction fans having the function of sucking air from the outside of the support towards its inside through said through holes.

9. (Previously Presented) The equipment according to claim 8, wherein said suction fans are represented by fans.

10. (Previously Presented) The equipment according to claim 8, wherein said suction fans are represented by pumps of the compressor or vacuum pump type.

11. (Previously Presented) The equipment according to claim 8, wherein said suction fans are connected to a water separator.

12. (Previously Presented) The equipment according to claim 11, wherein said separator is a condenser.

13. (Previously Amended) The equipment according to claim 11, wherein said separator separates the water from the air by mechanical and physical action.

14. (Previously Presented) The equipment according to claim 13, wherein said separator is a coclea-shaped distillator.

15. (Previously Presented) The equipment according to claim 1, further comprising guide means suitable to guide and support the inlet and outlet sheet of non-woven-fabric from said equipment.

16. (Previously Presented) The equipment according to claim 15, wherein said guide means are rollers individually and independently motor-driven by corresponding motors.

17. (Previously Presented) The equipment according to claim 15, wherein at least one pair of said guide means are positioned at the ingoing non-woven-fabric into the printing stations and consist of widening means which allow increasing the height of the non-woven-fabric.

18. (Previously Presented) The equipment according to claim 1, further comprising an image acquiring device.

19. (Previously Presented) The equipment according to claim 16, wherein said device is a camera or a video camera.

20. (Previously Presented) The equipment according to claim 18, wherein said device is a digital device.

21. (Original) A process for the printing of non-woven-fabric comprising the steps of:
providing a non-woven-fabric sheet;
providing an equipment for printing on non-woven- fabric comprising a driven support for the transportation of said non-woven-fabric and at least one driven printing body;
feeding said equipment with said non-woven-fabric sheet;
performing the printing on said non-woven-fabric under the control and command of a control and command unit,

wherein said control and command unit is operatively connected with said support and at least one printing body such as to detect electrical signals originating from said support and at least one printing body, turning said signals into numerical values representative of the status of their angular speed and torque moment, comparing said numerical values with ratios of preset numerical values of said angular speeds and said torque moments and sending signals to said support and at

least one printing body in order to correct any possible variations of said values which fall out with said ratios.

22. (Original) The process according to claim 21, wherein said control and command unit acts separately and independently on each motor which operates the corresponding rotating body of the equipment such as to make reference to the same electrical axis.

23. (Previously Presented) The process according to claim 21, wherein the control by the control and command unit is implemented by additional closed loop automatic control comprising the assistance of an image acquiring device.

24. (Previously Presented) The process according to claim 21, further comprising an operation stage of holding means in order to hold the non-woven-fabric sheet onto the outer surface of the support.

25. (Original) The process according to claim 24, wherein said operation stage of the holding means is achieved by suction fans which, by sucking air from the outside towards the inside of the support through through holes, hold the non-woven-fabric onto said support.

26. (Previously Presented) The process according to claim 24, also comprising a control stage of the operation of the holding means by said control and command unit.

27. (Previously Presented) The process according to claim 25, comprising a separation stage of the water from the air sucked in by the suction fans.

28. (Previously Presented) The process according claim 21, wherein the printing stage occurs by means of flexographic (ink) or serigraphic (colored paste) methods.

29. (Previously Presented) The process according to claim 28, comprising a dye control stage by the control and command unit through the optimization of the characteristics of each dye, such as flow, pressure and viscosity, depending on the type of non-woven-fabric to be printed.

30. (Previously Presented) The process according to claim 21, comprising a widening stage in order to ensure the maintenance of the product height.

31. (Previously Presented) The process according to claim 21, wherein printing takes place at a speed of up to 400 m/min on a sheet of wet or dry non-woven-fabric.

32. (Previously Presented) Non-woven-fabric obtainable by means of the process according to claim 21.

33. (Previously Presented) The non-woven-fabric according to claim 32 characterized by having multicolor text and/or drawings.

34. (Currently Amended) Equipment for printing on non-woven-fabric, comprising a driven support provided with through holes so as to transport a sheet of non-woven-fabric, at least one driven printing body for implementing the printing and driven holding means which interact with said support in order to hold said sheet onto said support, wherein both angular speed and torque moment of said support and said printing body are controlled in order to correct variations thereof that fall outside of predetermined numerical values.